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Application No. 09/171,921

March 29, 2004

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 1-7, 9-31 and 77-79 are pending in this application.

Allowable Subject Matter:

Claims 30 and 31 have been indicated as being allowable.

The Office Action indicated that claims 79 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. By this Amendment, claim 79 has been rewritten in independent form including all of the limitations of base claim 1. Claim 79 is therefore allowable.

Rejection Under 35 U.S.C. §103:

Claims 1-7, 9-29, 77 and 78 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Persidsky (U.S. '666). Applicant respectfully traverses this rejection.

In order to establish a prima facie case of obviousness, all of the claimed limitations must be taught or suggested by the prior art and there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings.

Applicant submits that Persidsky fails to teach or suggest "...using said movement data to provide a mode response selected from a multiplicity of stored possible modes, at

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least some of which define selection for display of a further one of the pages from the multiplicity of pages, the further one of the pages being adjacent to a previously selected page being currently displayed,” as required by independent claim 1 and its dependents.

While Persidsky discloses a pen computer which is capable of collecting and recording data representative of handwritten movement of the pen, movement data is not used in a manner required by claim 1. As noted above, claim 1 requires using movement data to select for display a further page which is adjacent to the currently displayed page. Persidsky fails to disclose this feature. Indeed, Persidsky specifically teaches away from using movement data to select a further page from the page being currently displayed. For example, Persidsky discloses “...page down buttons 42 and 44, which are used to control which page of image memory is currently displayed in display 24.” (See col. 3, lines 38-40 of Persidsky.) Similarly, col. 6, lines 15-17 of Persidsky discloses “In either write mode, page up and page down buttons 42 and 44 are used to select which page of image memory 22 is currently displayed in display 24.” Accordingly, while the present invention defined by claim 1 uses movement data to select a further page from the page being currently displayed, Persidsky instead discloses pressing page up and page down buttons 42 and 44 to select a page to be displayed in display 24.

The Office Action alleges the following:

“Further, Persidsky teaches a microprocessor or microcontroller which interprets the digitized motion data (abstract, lines 11-12) so it would have been obvious to one of ordinary skill in the art to utilize the processor taught by Persidsky as a means to provide a mode response for selection for display of a further one of the pages from a multiplicity of

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pages instead of using the page up and page down buttons (fig. 3, 42, 44) because it would allow a user to make a selection based on movement data of the pen describing the motion and the user's intention and also allow a user with disability to utilize a page up and page down commands with no apparent difficulties."

Applicant respectfully disagrees with the Office Action's apparent allegation that the page up and page down functionality provided by the selection of electro-mechanical buttons (as explicitly disclosed by Persidsky) can be modified to make a selection based on movement of the pen since a user with a disability could utilize the page up and page down commands with no apparent difficulties. First, there is absolutely no motivation to one of ordinary skill in the art for this modification. The Office Action has clearly embraced an improper "obvious to try" rationale in support of an obviousness rejection by trying to vary parameters or trying each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices were likely to be successful. In particular, there is no absolutely no teaching or suggestion whatsoever that Persidsky even contemplated making operations easier for people with disabilities. Furthermore, no control function of Persidsky is initiated by the motion of the pen device. The motion sensing disclosed by Persidsky is used strictly for sensing writing or drawing motions. Even further, Persidsky teaches away from this proposed modification through his explicit disclosure of buttons 42 and 44. Making a specific movement of Persidsky's pen device corresponding to a page up or page down command might be just as difficult for a disabled person as pushing a button, particularly since a

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specific (and very possibly intricate) hand movement by the disabled user may be needed to distinguish it from other hand movements corresponding to other actions, letters, etc.

The apparent allegation in the Office Action that it would have been obvious to substitute the functionality of page up and page down buttons 42, 44 with a pen motion to allow use by disabled users is clearly based on improper hindsight reasoning. Again, Persidsky does not even contemplate making a device specifically for disabled users in any respect.

The Office Action's allegation that selection of a display of another page from the page currently displayed involving "no apparent difficulties" is erroneous. One substantial difficulty in assigning a page up or page down command to a particular pen movement is that many of the pen movements are needed to form letters of the alphabet. As an example, suppose one moved Persidsky's pen tip in a downward vertical direction. It is unknown whether the pen device would interpret this movement as "page down" or as the number "1" or as the letter "I". This clearly teaches away from the Office Action's proposed modification as it would make the Persidsky pen device less effective since the user's true intention would more likely be misinterpreted by the microprocessor of the Persidsky pen device. There would be even more possible interpretations by the microprocessor of Persidsky's pen device for similar pen movements if the modification proposed by the Office Action were made and thus a greater likelihood of error. How would the pen device of Persidsky know that a particular movement is for page down rather than for writing a particular letter of the alphabet if the modification proposed by the Office Action were made?

movement
defn?

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The above claimed feature relating to selecting a display of a further one of the pages adjacent to a currently displayed page is supported by, for example, page 8, line 24 to page 9, line 28 of the originally-filed specification. As discussed by the portion of the originally-filed specification, two accelerometers can detect the “tilt” of the device body rather than a simple writing motion. Tilting the body of the pen may indicate a requirement to look left or right of the current display depending on the direction of the tilt. Moreover, the user may “roll” the body away from the normal viewing angle for page up or page down commands. The present invention is therefore capable of detecting movement not normally associated with a writing motion and, instead allow the pen device to respond to tilt or roll motions. Persidsky fails to even begin to appreciate this feature. For example, Persidsky fails to even contemplate page left or page right functionality. Again, all of the control functions disclosed by Persidsky is accomplished by button selection. Persidsky is therefore a much less sophisticated device than that of the present invention in which automated detection of rolling or tilting motions can be used to automatically select a next page.

Independent claim 12 requires, inter alia, “wherein the processing means is responsive to detected movement data to determine a most likely orientation of the computer display means, the processing means causing the displayed information to be oriented accordingly.” This feature is supported by, for example, page 6, line 26 to page 7, line 2 of the specification which states, inter alia, “...determination of orientation of alphanumeric or other display information on the screen 5 will be determined from the

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orientation of the computer itself.” In an exemplary embodiment, microcontroller 30 uses position outputs from accelerometers 31, 32 to determine from the orientation of the computer whether the hand-held computer is in the left-hand or right-hand of the user.

As noted above, the self contained pen computer described by Persidsky is capable of collecting and recording data representative of handwritten movement of the pen. However, this movement is not related in any way to determining the orientation of display 24. Instead of using movement data to determine an orientation of the computer display, Persidsky explicitly teaches using mode button 36. For example, Persidsky discloses “In the preferred embodiment, mode button 36 is used to select whether the pen computer is in right-hand write mode, left-hand write mode...” (See col. 4, lines 55-60).

Claim 15 requires providing signals indicative of a proximity of the computer display screen to a user’s view, and increasing and decreasing the density of displayed information responsive to changes in the relative proximity. Persidsky fails to disclose this feature. That is, Persidsky fails to disclose detecting how proximate the computer display screen is to the user’s view, let alone changing the density of the displayed information based on that relative proximity. If the rejection of claim 15 is maintained, Applicant respectfully requests that the next Office Action specifically describe how Persidsky teaches or suggests this claimed feature.

Accordingly, Applicant respectfully submits that claims 1-7, 9-29 and 77-78 are not “obvious” over Persidsky and respectfully requests that the rejection of these claims under 35 U.S.C. §103 be withdrawn.

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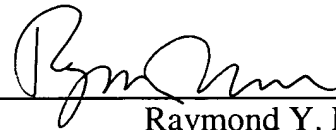
Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



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